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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/597,574

Applicant(s)

HILDEBRAND ET AL.

Examiner

CAI CHEN

Art Unit

2425

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-15 and 29-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-15, and 29-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 3-15, and 29-34 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dureau in view of Mao and further in view of Candelore (US 2003/0135860 A1).

Regarding claim 3, Dureau discloses a method of transcoding dissimilar payloads the method comprising:

demultiplexing (para. 39, demultiplexed), at a device, a the first digital transport stream to recover first and second digital payloads that were each carried in the first transport stream prior to demultiplexing (para. 34-35, and 39, service provider to transport the content data contains HTML data, MPEG 1 data, MPEG 2 data, and MPEG 4 data are being demultiplexed at the set top box receiver, first payload refers to MPEG 2, second payload refers to MPEG 4 data);

transcoding the second digital payload to a protocol associated with the first digital payload (Fig. 4-6, abstract, para. 32-33, para. 35-38, para. 43-44, para. 47, the

MPEG 4 data payload is transcoded into MPEG 2 data format for compatibility and where MPEG 2 refers as first payload, and MPEG 4 is second payload)

Dureau does not explicitly disclose determining whether a protocol associated with the second digital payload is dissimilar from a protocol associated with the first digital payload;

transcoding the second digital payload to the protocol associated with the first digital payload if the protocol associated with the second payload is determined to be dissimilar from the protocol associated with the first payload; and

multiplexing the first digital payload and the transcoded second digital payload to a second digital transport stream.

Mao teaches determining whether a protocol associated with the second payload is dissimilar from a protocol associated with the first digital payload (Fig. 1, the protocol for first payload (el. 13, MPEG 2, digital signal) is dissimilar than the second payload (el. 11, analog signal, col. 6, lines 14-36));

transcoding the second payload to the protocol associated with the first digital payload if the protocol associated with the second payload is determined to be dissimilar from the protocol associated with the first digital payload (col. 6, lines 14-36, the analog signal are transcoded into MPEG 2 signal); and

multiplexing the first digital payload and the transcoded second payload to a second transport stream (col. 6, lines 14-36, el. 14 the MPEG multiplexer is used to multiplex el. 11 and el. 13 signal, the examiner is merely relying on the conception of multiplexing two type of payloads together to form a media stream)).

It would be obvious to one of ordinary in the art at the time of invention to modify Dureau to include determining whether a protocol associated with the second payload is dissimilar from a protocol associated with the first digital payload; transcoding the second payload to the protocol associated with the first digital payload if the protocol associated with the second payload is determined to be dissimilar from the protocol associated with the first digital payload; and multiplexing the first digital payload and the transcoded second payload to a second transport stream, as taught by Mao, in order to deliver the desire payload to user's home equipments so the data payload is compatible to the home equipments and therefore displaying to the user

Dureau in view of Mao does not explicitly discloses the second payload to be a digital payload and to be transcoded from second digital payload to first digital payload,

Candelore discloses the second payload to be a digital payload and to be transcoded from second digital payload to first digital payload (Fig. 2, transcoding digital AVC payload to MPEG2 payload, para. 15),

It would be obvious to one of ordinary in the art at the time of invention to modify Dureau in view of Candelore to include the second payload to be a digital payload and to be transcoded from second digital payload to first digital payload in order to form a single complete media stream and the displaying format to be compatible for user device so user can have better viewing experience.

Regarding claim 4, Dureau in view of Mao in view of Candelore discloses wherein the protocol associated with the first digital payload is older than the protocol

associated with the second digital payload and the second payload is transcoded to the older protocols (Dureau, para.35, the transcoder is used to transcode the MPEG2 (older) to MPEG 4, Candalore, Fig. 2, para. 15).

Regarding claim 5, Dureau in view of Mao discloses wherein the protocol associated with the first digital payload is less compressive than the protocol associated with the second digital payload, and the second digital payload is transcoded to the less compressive protocols (Dureau, para.35, the transcoder is used to transcode the MPEG 4 to MPEG 2, Candalore, Fig. 2, para. 15).

Regarding claim 7, Dureau in view of Mao in view of Candalore discloses all limitation of claim 3.

Dureau in view of Mao not explicitly disclose decrypting conditional access (CA) encryption of the first transport stream prior to demultiplexing.

Candalore teaches disclose decrypting conditional access (CA) encryption of the first transport stream prior to demultiplexing (Fig. 2, 5, and 8, el. 272-el. 288, para. 40-41, para. 60-64, para. 84-85, para. 94).

It would be obvious to one of ordinary in the art at the time of invention to modify Dureau in view of Mao set top box to include decrypting conditional access (CA) encryption of the first transport stream prior to demultiplexing, as taught by Candalore, in order to decrypt the TV signal so only the person is authorized can access the TV content (para. 40-41).

Regarding claim 8, Dureau in view of Mao further in view of Candelore discloses decrypting the CA encryption of the first digital transport stream in a settop box (STB) (Candelore, Fig. 2, 5, and 8, el. 272-el. 288, para. 40-41, para. 60-64, para. 84-85, para. 94).

Regarding claim 9, Dureau in view of Mao discloses all limitation of claim 1, and further discloses step of demultiplexing the first transport stream, transcoding the second digital payload, and multiplexing the first and transcoded payloads occurs in the system (Mao, Fig. 1, col. 6, lines 14-36, Dureau, para. 39, Candelore, Fig. 2, para. 15).

Dureau in view of Mao does not explicitly discloses a card inserted into a card slot of first interface device,

Candelore teaches discloses a card inserted into a card slot of first interface device (Fig. 2, el. 10, a cable card containing the function of transcoder is inserted in the STB receiver),

It would be obvious to one of ordinary in the art at the time of invention to modify Dureau in view of Mao a card inserted into a card slot of first interface device, in order to easily replace the cable card with another one if it goes bad.

Regarding claims 29 and 32, the instant claims are met by the rejection with respect to claim 1.

Regarding claim 35, Dureau in view of Mao discloses all limitation of claim 32, and further discloses wherein the demultiplexor (Dureau, para. 39), the transcoder (Mao, Fig. 1, el. 20) and the multiplexor are on a first hardware module (Mao, Fig. 1, el. 14),

Dureau in view of Mao and further in view of Candelore does not explicitly disclose first hardware module that is configured to be inserted into a receiver device that is configured to decode digital payloads formatted according to the second protocol.

Candelore teaches first hardware module that is configured to be inserted into a receiver device that is configured to decode digital payloads formatted according to the second protocol (Fig. 2, el. 10, the cable card is to inserted to the receiver).

It would be obvious to one of ordinary in the art at the time of invention to modify Dureau in view of Mao to include first hardware module that is configured to be inserted into a receiver device that is configured to decode payloads formatted according to the second protocol in order to easily to replace this module if it goes bad.

Regarding claim 36, Dureau in view of Mao and further in view of Candelore discloses all limitation of claim 33, and further discloses wherein the demultiplexor (Dureau, para. 39), the transcoder (Fig. 1, el. 20), and the multiplexor are on a first hardware module (Mao, Fig. 1, el. 14),

Dureau in view of Mao and further does not explicitly disclose first hardware module that is configured to be inserted into a receiver device that is configured to decode digital payloads formatted according to the second protocol.

and the first copy protection encoder, the first copy protection decoder are on a first hardware module,

Candelore teaches first hardware module that is configured to be inserted into a receiver device that is configured to decode payloads formatted according to the second protocol (Fig. 2, el. 10, the cable card is to inserted to the receiver).

the first copy protection encoder (Candelore, Fig. 2, el. 28), the first copy protection decoder are on a first hardware module (Candelore, Fig. 2, el. 29),

It would be obvious to one of ordinary in the art at the time of invention to modify Dureau in view of Mao to include first hardware module that is configured to be inserted into a receiver device that is configured to decode digital payloads formatted according to the second protocol in order to easily to replace this module if it goes bad.

Regarding claim 38, Dureau in view of Mao in view of Candelore discloses transmitting the second digital transport stream to a device that is configured to receive transport streams containing digital payloads formatted according to the first protocol (Candelore, Fig. 2, the second transport stream is going from the cable card (el. 28) to the STB (el. 29), and the cable card has the transcoder (el. 70) to format to the MPEG 2 protocol).

4. Claims 30 and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dureau in view of Mao and further in view of Candelore (US 2005/0175178 A1) and further in view of Kost (US 2002/01546941 A1).

Regarding claim 30, Dureau in view of Mao discloses all limitation of claim 29.

Dureau in view of Mao does not explicitly disclose prior to demultiplexing, decoding the first transport stream to remove copy protection,

After multiplexing, decoding the second transport stream to be copy protected,

Candelore teaches prior to demultiplexing, decoding the first transport stream to remove copy protection (Fig. 1, el. 29, the transport stream is decrypted at el. 29 prior to demultiplexing),

It would be obvious to one of ordinary in the art at the time of invention to modify Dureau in view of Mao set top box to include prior to demultiplexing, decoding the first transport stream to remove copy protection, as taught as taught by Candelore, in order to ensure that the copy protected content is only accessed by the authorized persons (para. 40-41).

Dureau in view of Mao and further in view of Candelore does not explicitly disclose After multiplexing, decoding the second transport stream to be copy protected,

Kost teaches after multiplexing, decoding the second transport stream to be copy protected (para. 46),

It would be obvious to one of ordinary in the art at the time of invention to modify Dureau in view of Mao and further in view of Candelore set top box to include after

multiplexing, decoding the second transport stream to be copy protected in order to ensure copy protected content is only accessed by authorized users.

Regarding claim 33, the instant claim is analyzed with respect to claim 30.

Regarding claim 34, Dureau in view of Mao and further in view of Candelore and further in view of Kost discloses a second copy protection encoder configured to encode the first transport stream to be copy protected and transmit it to the first copy protection decoder (Candelore, Fig. 2, el. 28, CP Encrypter is to encode),

a second copy protection decoder configured to decode the second transport stream received from the second first copy protection encoder, so as to no longer be copy protected (Candelore, Fig. 2, el. 29, CP decryption to decode); and

a second demultiplexor configured to demultiplex the second transport stream received from the second copy protection decoder, to separate the first payloads from the second payloads (Candelore, Fig. 2, el. 30, the demultiplexer to separate two payload one going to el. 24, and other one goes to el. 31).

5. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dureau in view of Mao and further in view of Candelore (US 2005/0175178 A1) and further in view of Iwamura (US 2003/0059047 A1).

Regarding claim 37, Dureau in view of Mao and further in view of Candelore discloses all limitation of claim 36, and further discloses wherein the demultiplexor (Dureau, para. 39), the transcoder (Candelore, Fig. 2, el. 70), and the multiplexor are on a first hardware module (Mao, Fig. 1, el. 14), the first copy protection encoder (Candelore, Fig. 2, el. 28), the first copy protection decoder are on a first hardware module (Candelore, Fig. 2, el. 29),

Dureau in view of Mao and further in view of Candelore does not explicitly disclose a first hardware module that is configured to communicate with a second hardware module that contains the second copy protection encoder, the second copy protection decoder, and the second demultiplexor.

Iwamura teaches a first hardware module that is configured to communicate with a second hardware module that contains the second copy protection encoder, the second copy protection decoder, and the second demultiplexor (Fig. 2, para. 17, para. 58-60, the set top box contains second encryptor, decryptor, and demultiplexer are communicated to Pod card (first module)).

It would be obvious to one of ordinary in the art at the time of invention to modify Dureau in view of Mao and further in view of Candelore to include teaches a first hardware module that is configured to communicate with a second hardware module that contains the second copy protection encoder, the second copy protection decoder, and the second demultiplexor, as taught by Iwamura, in order to properly decoded the copy protected content to the authorized users.

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dureau in view of Mao and further in view of Candelore and further in view of Park (5,757,909).

Regarding claim 10, Dureau in view of Mao and further in view of Candelore discloses all limitation of claim 9, and further discloses decode the data stream prior to the demultiplexing, transcoding, and multiplexing (Mao, Fig. 1, col. 6, lines 14-36, Dureau, para. 39).

Dureau in view of Mao and further in view of Candelore does not explicitly disclose [decoding] copy protection of the first transport stream [in the card].

Park teaches [decoding] copy protection of the first transport stream [in the card] (Fig. 6-9, col. 13, lines 1-67, col. 14, lines 21-67).

It would be obvious to one of ordinary in the art at the time of invention to modify Dureau in view of Mao and further in view of Candelore to include [decoding] copy protection of the first transport stream [in the card], as taught by Park, in order to perform the illegal viewing and copy protection (col.14, lines 65-67).

7. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dureau in view of Mao and further in view of Candelore and further in view of Park (5,757,909) and further in view of Orr (US 6,567,127 B1).

Regarding claim 11, Dureau in view of Mao and further in view of Candelore and further in view of park discloses all limitations of claim 10.

Dureau in view of Mao and further in view of Candelore and further in view of park does not explicitly disclose encoding copy protection to the second transport stream.

Orr teaches encoding copy protection to the second transport stream (Fig. 1, col. 3, lines 30-63).

It would be obvious to one of ordinary in the art at the time of invention to modify Dureau in view of Mao and further in view of Candelore and further in view of Park to include encoding copy protection to the second transport stream, as taught by Orr, in order to enhance the video data stream (col. 3, lines 50-52).

Regarding claim 12, Dureau in view of Mao and further in view of Candelore and further in view of park and further in view of Orr discloses transmitting the copy protection encoded second transport stream from the card to the first interface device (Dureau, Fig. 1-4, abstract, para. 33-36, Hendricks, Fig. 52b, col. 13, lines 16-43, col. 3, lines 30-col. 4, line 3, the encoded video stream is transferred to the set top box).

8. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dureau in view of Mao (US 6,886,178 B1) and further in view Candelore and Kost and further in view of Orr (US 6,567,127 B1)

Regarding claim 31, Dureau in view of Mao and further in view of Candelore and Kost discloses all limitation of claim 30,

Dureau in view of Mao and further in view of Candelore and Kost does not explicitly disclose prior to demultiplexing and prior to decoding, encoding the first transport stream to be copy protected;

after multiplexing and after encoding the second transport stream, decoding the second transport stream no longer be copy protected; and

after decoding the second transport stream, demultiplexing the second transport stream to recover the first and transcoded second payloads.

Candelore one embodiment teaches prior to demultiplexing (el. 30) and prior to decoding (el. 34), encoding the first transport stream to be copy protected (Fig. 1, el. 28);

after decoding the second transport stream (el. 29), demultiplexing (el. 30) the second transport stream to recover the first and transcoded second payloads (first payload goes to el. 34, and second payload goes to el. 31).

It would be obvious to one of ordinary in the art at the time of invention to modify Dureau in view of Mao and further in view of Candelore and further in view of Kost to include prior to demultiplexing and prior to decoding, encoding the first transport stream to be copy protected and after decoding the second transport stream, demultiplexing the second transport stream to recover the first and transcoded second payloads; as taught by Candelore, in order to copy protected the program file so only authorized user can access.

Dureau in view of Mao and further in view of Candelore and further in view of Kost does not explicitly disclose after multiplexing and after encoding the second

transport stream, decoding the second transport stream no longer be copy protected;
and

Orr teaches after multiplexing (Fig. 1, el. 50) and after encoding the second transport stream (el. 40, copy protection encoding), decoding the second transport stream no longer be copy protected (el. 116, copy protection decoder);

It would be obvious to one of ordinary in the art at the time of invention to modify Dureau in view of Mao and further in view of Candelore and further in view of Kost to include after multiplexing and after encoding the second transport stream, decoding the second transport stream no longer be copy protected; as taught by Orr, in order to remove the copy protected program content from authorized user so he or she can watch the content.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CAI CHEN whose telephone number is (571)270-5679. The examiner can normally be reached on 7:30 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Pendleton can be reached on 571-272-7527. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CAI CHEN/
Examiner, Art Unit 2425

/Brian T Pendleton/
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